

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Kazuhisa KASHIWAZAKI et al.

Serial No.: 09/978,063

Group Art Unit: 1742

Confirmation No.: 4184

Examiner: COMBS, JANELL A

Filed: October 17, 2001

For: ALUMINUM SHEET MATERIAL FOR AUTOMOBILE AND METHOD OF  
PRODUCING THE SAME

## DECLARATION UNDER 37 C.F.R. § 1.132

Honorable Commissioner of Patents  
and Trademarks  
Washington, D.C. 20231

Sir :

I, Yoichiro BEKKI, hereby declare and state that:

1. I am a Japanese citizen residing at c/o THE  
FURUKAWA ELECTRIC CO., LTD. 6-1 Marunouchi 2-chome,  
Chiyoda-ku, Tokyo, Japan.

I am a graduate from Department of Metal Engineering,  
Faculty of Engineering, The University of Tokyo, in March  
of 1980.

Since April, 1980, I have been employed by FURUKAWA ALUMINUM CO., LTD. (merged with THE FURUKAWA ELECTRIC CO., LTD.).

From 1980 to 1986, I was engaged in research and development of structure control in aluminum hot rolling, and in development of car-body materials, in the Nikko

Technological Laboratory of the said company (now renamed to Metal Research Center). From 1986 to 1991, I was engaged in research for aluminum hot rolling, and in research and development of aluminum can-body materials and aluminum materials for foils and presensitized plates, in Fukui rolling technology section (now absorbed as one of sections of the Metal Research Center). Since 1991, I have been engaged in research and development of working of aluminum sheet materials for automobiles; in development of aluminum materials for electrical machinery and memory discs; in development of recycle technology of aluminum scraps; and in development of aluminum extrusion materials for automobiles, in the Nikko Technological Laboratory (renamed to Metal Research Center).

I am one of the joint inventors of the subject matter of the United States Patent Application Serial No. 09/978,063, filed on October 17, 2001, and am thus intimately familiar with the contents of the application, its prosecution before the United States Patent & Trademark Office, and the references cited therein.

2. I have studied the contents of the cited Japanese Patent Unexamined Publication No. 10-110232, Japanese Patent Unexamined Publication No. 09-256095, Japanese Patent Unexamined Publication No. 58-031054, U.S. Patent No. 4,718,948 and U.S. Patent No. 6,323,870 B1.

3. To show the superiority of the present invention, the following tests were conducted, by me or under my supervision:

Test

Aluminum sheet materials, Samples A<sub>3</sub> and C<sub>3</sub>, were prepared in the same manner as Samples A<sub>1</sub> and C<sub>1</sub> in Example 1 in the present specification, except that the cooling rate (cooling down rate, 3°C/second) after final annealing was changed to about 100°C/hour (0.028°C/second). This cooling rate (0.028°C/second) was employed based on the description in Japanese Patent Unexamined Publication No. 9-256095. These sheet materials were tested for tensile strength, proof strength, elongation and bending property, under the same conditions as described in lines 10 to 22 on page 16 in Example 1 of the present specification.

The results are shown in Table A below.

Further, for reference, the results of Samples A<sub>1</sub> and C<sub>1</sub> shown in Table 4 on page 21 in the specification of the present application, are excerpted and shown in Table A.

Table A

	Sample			
	This invention Cooling rate: 3°C/second		Comparative example Cooling rate: 0.028°C/second	
	A <sub>1</sub>	C <sub>1</sub>	A <sub>3</sub>	C <sub>3</sub>
Tensile strength (MPa)	311	276	180	160
Proof strength (MPa)	185	156	90	80
Elongation (%)	20.2	22.3	23	24
Bending property	GOOD	GOOD	GOOD	GOOD
Remarks	This invention	This invention	Comparative example	Comparative example

As is apparent from the results shown in Table A above, Samples A<sub>3</sub> and C<sub>3</sub> (Comparative examples), which were cooled down with the cooling rate of 0.028°C/second, each exhibited sufficient elongation and bending property, but was poor in tensile strength and proof strength. On the other hand, it is apparent that the aluminum sheet material Samples A<sub>1</sub> and C<sub>1</sub> (This invention), which were cooled with the cooling rate of 3°C/second, were excellent in tensile strength and proof strength, as well as elongation and bending property.

As mentioned above, the aluminum sheet materials of the present invention exhibited unexpectedly excellent

results not only in elongation and bending property tests but also tensile strength and proof strength tests, compared with the aluminum sheet materials for comparison.

The data already of record in the specification and the supplemental data submitted herewith demonstrate unexpectedly superior results of the claimed aluminum sheet material for automobile and method of producing thereof over those of the cited prior art.

4. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: April 16, 2003

Yoichiro Bekki  
Yoichiro BEKKI